

MEDB 1.6 Resting ECG

3.2 Medical Requirements Overview

TABLE 3.2: MEDICAL REQUIREMENTS OVERVIEW

MEDB# and Title:	MEDB 1.6 Resting ECG
Sponsor:	Medical Operations
Discipline:	N/A
Category:	Medical Requirements
References:	SSP 50260 ISS Medical Operations Requirements Document (MORD) SSP 50667 Medical Evaluations Document (MED) Volume B Section 1.6
Purpose/Objectives:	To assess pre- and postflight ECG recordings on long-duration flight crew members at rest using a 12-lead electrocardiogram (ECG)
Measurement Parameters:	12-lead ECG tracing
Deliverables:	Pre- and postflight ECG reports related to the cardiovascular examination.
Flight Duration:	≥ 30 days
Number of Flights:	All
Number and Type of Crew Members Required:	All ISS crew members
Other Flight Characteristics:	N/A

MEDB 1.6 Resting ECG

3.3 Preflight Training – No Preflight Training

3.4 Preflight Activities

TABLE 3.4: PREFLIGHT ACTIVITIES

Preflight Activity	Description:	Subject lies supine for 15 minutes while ECG tracings are recorded from 10 electrode sites (using chest and limb leads).			
	Schedule:	Duration: 15 minutes	Schedule: AME L-9/6 m to L-10 d & as clinically indicated	Flexibility: Within specified range	Blood Volume: N/A
Ground Support Requirements Hardware/Software		Preflight Hardware: 12-lead electrocardiogram (ECG) machine Electrodes and skin prep supplies		Preflight Software: N/A	Test Location: JSC /Russia
Testing Facilities	Minimum Room Dimensions:	Number of Electrical Outlets:		Temperature Requirements:	Special Lighting:
	Normal Exam Room approx. 10'x10'	2 (U.S. 110V, Russia 220V)		20° - 25°C	N/A
	Hot or Cold Running Water:	Privacy Requirements:		Vibration/Acoustic Isolation:	Other:
	N/A	Private room, free from distractions		N/A	Gurney (or equivalent), small table, 1 chair
Constraints/Special Requirements:		No caffeine or alcohol for 12 hours prior to testing.			
Launch Delay Requirements:		N/A			
Notes:					
Data Delivery		Raw data is transferred to the Picture Archiving and Communication System (PACS) within 24 hours. Final pre-flight report is available in the Mission Medical Integration System (MMIS) in three business days.			

MEDB 1.6 Resting ECG

3.5 In-Flight Activities – No In-flight Activities

3.6 Postflight Activities

TABLE 3.6: POSTFLIGHT ACTIVITIES

Postflight Activity	Description:	Subject lies supine for 15 minutes while ECG tracings are recorded from 10 electrode sites (using chest and limb leads).				
	Schedule:	Duration:	Schedule:	Flexibility:	Blood Volume:	Personnel Required:
		15 minutes	R+0/3 days & as clinically indicated	Within specified range	N/A	Technician, crew member
Ground Support Requirements Hardware/Software	Postflight Hardware:		Postflight Software:		Test Location:	
	12-lead electrocardiogram (ECG) machine Electrodes and skin prep supplies		N/A		JSC/Russia	
Testing Facilities	Minimum Room Dimensions:	Number of Electrical Outlets:		Temperature Requirements:	Special Lighting:	
	Normal Exam Room approx. 10’x10’	2 (U.S. 110V, Russia 220V)		20° - 25°C	N/A	
	Hot or Cold Running Water:	Privacy Requirements:		Vibration/Acoustic Isolation:	Other:	
	N/A	Private room, free of distraction.		Gurney (or equivalent), small table, chair		
Constraints/Special Requirements:		No caffeine or alcohol for 12 hours prior to testing.				
Early Destow / Early Return:		N/A				
Notes:		N/A				
Data Delivery		Raw data is transferred to the Picture Archiving and Communication System (PACS) within 24 hours. Final post-flight report is available in the Mission Medical Information System (MMIS) in three business days.				

MEDB 1.6 Resting ECG

3.7 Summary Schedule

TABLE 3.7: SUMMARY SCHEDULE

ACTIVITY	DURATION	SCHEDULE	FLEXIBILITY	BLOOD VOLUME	PERSONNEL REQUIRED	CONSTRAINTS
Preflight Training – N/A						
Preflight						
Resting ECG	15 minutes	AME L-9/6 m to L-10 d & as clinically indicated	Within specified range	N/A	Technician, crew member	No caffeine or alcohol for 12 hours prior to testing.
In-Flight – N/A						
Postflight						
Resting ECG	15 minutes	R+0/3 days & as clinically indicated	Within specified range	N/A	Technician, crew member	No caffeine or alcohol for 12 hours prior to testing.
Postflight Debrief – N/A						